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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,709	02/11/2004	Clayton C. Shaw	WIE-020	3429

7590 11/01/2005

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Stamford, CT 06905

EXAMINER

ENSEY, BRIAN

ART UNIT PAPER NUMBER

2646

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/776,709

Applicant(s)

SHAW ET AL.

Examiner

Brian Ensey

Art Unit

2646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-8 is/are rejected.
- 7) ☒ Claim(s) 2,3,9 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/2/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Maekawa et al U.S.

Patent No. 3,867,586.

Regarding claim 1, Maekawa discloses an audio speaker system comprising: a speaker driver (1,2,3,4,8) for reproducing sound, said speaker driver having a sound reproducing membrane (7); a horn having a throat (9) that extends to a mouth (5); and an annular gasket (6) that is disposed between said horn and said sound reproducing membrane in an area outside of and adjacent to said throat (See Fig. 3 and col. 2, lines 33-63).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

Art Unit: 2646

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maekawa as applied to claim 1 above, and further in view of Dodd U.S. Patent No. 6,116,373.

Regarding claims 3 and 4, Maekawa teaches an audio speaker as claimed. Maekawa does not expressly teach the content of his annular gasket is formed from a compliant material that absorbs sound and comprises closed cell foam. However, the use of closed cell foam gaskets for sound absorption is well known in the art and Dodd teaches a foam gasket for use on the connecting flange of a horn loudspeaker for sound absorption (See col. 1, lines 43-46 and lines 58-63). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the closed cell foam gasket of Dodd for vibration damping and sound absorption.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maekawa as applied to claim 1 above, and further in view of Meyer U.S. Patent No. 4,152,552.

Regarding claims 6 and 7, Maekawa teaches an audio speaker as claimed. Maekawa does not expressly teach said horn has an axi-symmetrical waveguide surface wherein said surface is curvilinear with a smooth flare rate. However, the use of speaker horns with an axi-symmetrical waveguide surface wherein said surface is curvilinear with a smooth flare rate is well known in the art and Meyer teaches a speaker horn with an axi-symmetrical waveguide surface wherein said surface is curvilinear with a smooth flare rate (See Figs. 1-3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the horn of Meyer in

Art Unit: 2646

the speaker of Maekawa for high quality, low distortion sound to be reproduced at high sound pressure levels (Meyer col. 3, lines 45-47).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maekawa as applied to claim 1 above, and further in view of Espiritu U.S. Patent No. 6,002,780.

Regarding claim 8, Maekawa teaches an audio speaker as claimed. Maekawa does not expressly teach a low frequency speaker in combination with said speaker driver and horn, wherein said speaker drive and horn are disposed coaxially with said low frequency speaker. However, the use of coaxially aligned speakers for improved sound fidelity over a wide frequency range is well known in the art and Espiritu teaches a high frequency speaker mounted coaxially with a low frequency speaker (See Fig. 1 and col. 1, lines 51-63). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to mount the audio speaker of Maekawa coaxially in the center of the low frequency speaker of Espiritu for an improved frequency response and reduced space.

Allowable Subject Matter

Claims 2, 3, 9 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Art Unit: 2646

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Ensey whose telephone number is 571-272-7496. The examiner can normally be reached on Monday - Friday 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231


Or faxed to:

(571) 273-8300, for formal communications intended for entry and for informal or draft communications, please label "PROPOSED" or "DRAFT".

Hand-delivered responses should be brought to: Customer Service Window, Randolph Building, 401 Dulany Street, Arlington, VA 22314

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BKE
October 27, 2005


SINH TRAN
SUPERVISORY PATENT EXAMINER